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# Patient Satisfaction With Videoconferencing-based Treatment for Alcohol Use Disorders

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## Abstract

### Objectives:

The objectives of this study are (1) to compare the satisfaction between patients who have received treatment as usual face-to-face (TAU group) and patients who have received optional videoconferencing-based treatment for alcohol use disorders (TAU + I group); and (2) to elaborate on the TAU + I group's satisfaction with the treatment in general and the technical equipment.

### Methods:

The design consisted of mixed methods: a survey and a qualitative study. Data consisted of self-reported data from questionnaires filled out by both groups and semistructured interviews with the TAU + I group. Data from the questionnaires were analyzed statistically using Stata. The semistructured interviews were analyzed using a general inductive approach.

### Results:

The survey indicated that the TAU + I group and TAU group were equally satisfied with the elements in the treatment. The interview indicated that the TAU + I group seemed to have a high satisfaction with most elements in the treatment. Patients who used videoconferencing were satisfied with establishing the videoconferencing connection and with the picture quality but less satisfied with the sound quality.

### Conclusions:

Overall, the patients were satisfied with the treatment. We saw a nonsignificant tendency that the TAU + I group were more satisfied with the treatment in general, compared with the TAU group. It is a possibility that patients in this group felt more satisfied with the treatment as they had the opportunity to choose videoconferencing. Offering videoconferencing-based treatment may be a positive feature in the treatment and lead to improved outcomes of the treatment courses. The technical equipment and routine using it should be improved in future studies or during implementation.

**Key Words:** treatment for alcohol use disorders, videoconferencing, satisfaction, effectiveness study

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**V**ideoconferencing-based treatment is gaining ground. Studies on videoconferencing-based treatment for addiction in general have found patients to be equally satisfied with care provided face-to-face or

by videoconferencing.<sup>1,2</sup> Also previous studies on videoconferencing-based assessment of and treatment for alcohol use disorders (AUD) in specific have found satisfaction and acceptance. Studies on assessment have found patients to be satisfied with and generally accept assessment interviews through videoconferencing.<sup>3</sup> In addition, videoconferencing-based assessments were found to produce similar results to albeit have longer durations than face-to-face assessments.<sup>4</sup> A study on videoconferencing-based open-group sessions for patients with AUD has reported high levels of satisfaction with and acceptance of videoconferencing-based treatment.<sup>5</sup> Furthermore, videoconferencing was found to be an acceptable option to deliver treatment for AUD in real-world settings for offenders.<sup>6,7</sup> Moreover, studies have demonstrated telephone and videoconferencing to be very acceptable forms of delivering motivational interviewing<sup>8</sup> sessions for patients with AUD. Participants expressed satisfaction with all 3 modes of communication, with no significant differences in preference between the 3 modes. However, when participants were asked to choose a long-distance mode of communication, videoconferencing was preferred 2 to 1 over telephone. Participants with experience in videoconferencing were significantly more likely to choose videoconferencing as a preferred mode of choice.<sup>9–11</sup>

Overall, previous studies have suggested that patients were generally satisfied with videoconferencing-based assessments of and treatment for AUD in various settings. We recently conducted a small randomized study on optional videoconferencing-based treatment in an outpatient alcohol clinic. Here, we identified some barriers from

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the patients toward fully accepting and using the equipment. As videoconferencing probably will be increasingly implemented and up-scaled in the future, due to centralization and cost-benefit issues, it is highly relevant to examine satisfaction among those who received optional videoconferencing-based treatment and those who did not. Therefore, the objectives were: (1) to compare satisfaction between patients who were offered optional videoconferencing-based treatment for AUD and patients who were offered face-to-face treatment as usual; (2) to elaborate on satisfaction with treatment and technical equipment among those who received optional videoconferencing-based treatment.

## METHODS

### Background

The present study was a substudy within a small randomized study conducted in the public outpatient alcohol clinic in Odense, Denmark, between September 2012 and April 2013. In the small randomized study, patients were divided in 2 groups: treatment as usual (TAU;  $n = 39$ ) and treatment as usual with add-on intervention (TAU+I;  $n = 32$ ). The TAU group received treatment as usual face-to-face at the clinic. The TAU+I group received treatment as usual as well; however, they were also offered optional videoconferencing-based treatment. They were equipped with a laptop with mobile broadband and a Cisco Telepresence videoconferencing client. Before each treatment session, they were able to choose whether they wanted to visit the clinic or receive treatment through videoconferencing. If a patient did not show-up at the clinic, the therapist would contact the patient via videoconferencing. The intention was that the technical solution should be equal for all patients.

### Sample

The TAU group and the TAU+I group did not deviate from each other, regarding socioeconomics and alcohol use. The average participant was about

47 years old, predominantly male, and started drinking excessively in their early 30s. More than half were currently cohabiting, a large part had higher/continuing education, and less than half were currently employed. However, the TAU+I group had a significant higher retention, compared with the TAU group. The present substudy was built on the design of the small randomized study and all patients in the small randomized study were eligible to participate in this substudy.

### Setting

In the outpatient clinic, treatment is carried out by an interdisciplinary team of social workers, nurses, and consultant psychiatrists. The treatment is free of charge and based on face-to-face sessions and pharmacology if needed.<sup>12</sup> Initially, patients are offered detoxification, if needed, and sessions on the basis of motivational interviewing.<sup>8</sup> If the patients decide to attend a psychosocial treatment course, they undergo a structured assessment interview by the means of the Addiction Severity Index (ASI).<sup>13</sup> Psychiatrists review the results of the assessment interview and refer the patients to one of the clinic's psychosocial treatment interventions, that is, cognitive behavioral therapy, supportive consultations, family therapy, or contract treatment.<sup>14</sup> Treatment is individual and not group based. One treatment session typically lasts for 30 to 60 minutes. At the beginning of the course, the frequency of the sessions is typically 1 to 2 times a week, whereas it is about 1 session every other week later in the course. A typical treatment course lasts for about 7 months.<sup>15</sup> Every 3 months, the patients undergo a status session where follow-up data, on the basis of the ASI, are collected and the treatment course is evaluated. Data from the assessment interviews and status sessions are stored in a clinical database. The patient and the therapist decide together when it is time to end the treatment course and a discharge status session is conducted. The treatment is carried out according to the clinical guidelines. The therapists are well-trained and their practice is closely supervised.<sup>16</sup>

**Design**

The study design was mixed methods. First, a survey based on anonymous questionnaires; second, a qualitative study by the means of semistructured interviews.

**Survey**

At the outpatient clinic, it has been routine since 2000 to invite all participants to fill out self-reported questionnaires, assessing patient satisfaction. The survey is performed in week 10 and 40 every year, and during these 2 weeks all patients attending sessions in the outpatient clinic receive a questionnaire. The questionnaire is filled out anonymously. In the present study, this standard questionnaire was supplemented with questions on technical equipment. The questionnaire was handed out to the patients participating in the study at status sessions at 3, 6, 9, and 12 months. The patients filled out the questionnaires and returned them anonymously in a post box. The TAU group and TAU+I group answered questions regarding satisfaction with the treatment in general. The questions were about the treatment course, their influence on the treatment, the number of sessions, the meeting with the therapists, collaboration with other instances, and the level of information. The answer possibilities to the questions were on a Likert scale between 1 and 5, from negative to positive. In addition, the TAU+I group answered a few questions about their satisfaction with the technical equipment. The questions were about establishing a connection to the clinic, picture quality, and sound quality. Again, the answer possibilities to these questions were on a Likert scale between 1 and 5, from negative to positive. The questionnaire is shown in Table 1.

**Interviews**

Before the intervention, patients in the TAU+I group were also invited to participate in semistructured interviews, taking place after the intervention was finished. The patients were invited by the therapists, the Project Manager, Pia Langhoff (P.L.), or K.T.

**TABLE 1.** Satisfaction Questionnaire TAU+I Group\*

<b>1. The treatment course</b>	
How has your treatment course been so far?	
1. Lousy, could not be worse	<input type="checkbox"/>
2. Pretty bad	<input type="checkbox"/>
3. Both good and bad	<input type="checkbox"/>
4. Good	<input type="checkbox"/>
5. Excellent, could not be better	<input type="checkbox"/>
<b>2. Influence on treatment</b>	
Have you had influence on the content in your treatment?	
1. Not at all	<input type="checkbox"/>
2. A little	<input type="checkbox"/>
3. Some	<input type="checkbox"/>
4. Quite some	<input type="checkbox"/>
5. A lot	<input type="checkbox"/>
<b>3. Number of sessions</b>	
Have you had the sessions that you needed?	
1. Not at all	<input type="checkbox"/>
2. A little	<input type="checkbox"/>
3. In some extend	<input type="checkbox"/>
4. To a great extend	<input type="checkbox"/>
5. As many as I could wish for	<input type="checkbox"/>
<b>4. Meeting the therapists</b>	
How have you experienced meeting the therapists?	
1. Lousy, confusing with changing therapists	<input type="checkbox"/>
2. Pretty bad	<input type="checkbox"/>
3. Both good and bad	<input type="checkbox"/>
4. Good	<input type="checkbox"/>
5. Excellent, could not be better	<input type="checkbox"/>
<b>5. Collaboration with other instances</b>	
Have your needs been met according to collaboration with other instances?	
1. I did not have the need for collaboration	<input type="checkbox"/>
2. Not at all	<input type="checkbox"/>
3. A little	<input type="checkbox"/>
4. In some extend	<input type="checkbox"/>
5. To a great extend	<input type="checkbox"/>
6. As much as I could wish for	<input type="checkbox"/>
<b>6. Level of information</b>	
Have you received the information that you needed?	
1. Not at all	<input type="checkbox"/>
2. A little	<input type="checkbox"/>
3. In some extend	<input type="checkbox"/>
4. To a great extend	<input type="checkbox"/>
5. As much as I could wish for	<input type="checkbox"/>
<b>7. Establishing connection<sup>†</sup></b>	
How was it to establish the connection to the therapist?	
1. I have not used videoconferencing	<input type="checkbox"/>
2. There were many problems	<input type="checkbox"/>
3. There were problems sometimes	<input type="checkbox"/>
4. It has worked	<input type="checkbox"/>
5. Easy, very few problems	<input type="checkbox"/>
6. Very easy, no problems	<input type="checkbox"/>

8. Picture quality<sup>†</sup>  
How was the picture quality?
1. I have not used videoconferencing ☐
  2. Bad, difficult to complete the session ☐
  3. Unstable, quite some disturbances ☐
  4. Okay ☐
  5. Good, only few disturbances ☐
  6. Perfect ☐
9. Sound quality<sup>†</sup>  
How was the sound quality?
1. I have not used videoconferencing ☐
  2. Bad, difficult to complete the session ☐
  3. Unstable, quite some disturbances ☐
  4. Okay ☐
  5. Good, only few disturbances ☐
  6. Perfect ☐

\*Translated from the Danish questionnaire.

<sup>†</sup>Question posed only to the TAU+I group.

They were invited face-to-face, by telephone, or by text messaging. No further professional relationship was established between researcher and patient; hence, they were told that we were researchers only and not providers of treatment for AUD.

The interviews were divided into 2 parts. A primary part on the patients' experiences with videoconferencing-based treatment for AUD; hence, only patients from the TAU+I group were invited. And an additional part, aiming to retrieve elaborations on the satisfaction survey, which this particular study is based on. The questions in this part of the interview guide were structured in the same way as the satisfaction questionnaire to secure elaborations on the same subjects. Most interviews were recorded and transcribed by K.T. Notes were taken to a few interviews by P.L. or K.T. All quotations were translated from the Danish interviews. The interview guide is shown in Table 2.

## Statistics

The statistical tests were conducted in Stata. We used the Shapiro-Wilk W test for normal data to test whether the data were normally distributed. If the data were normally distributed, we used the 2-sample *t* test with equal variances

to compare the means of the data from the questionnaires. If the data were not normally distributed, we used the 2-sample Wilcoxon ranksum (Mann-Whitney) test.

## Qualitative Analyses

Qualitative data from the semi-structured interviews were analyzed using elements from a general inductive approach (GIA).<sup>17</sup> GIA is a generic procedure for systematic analysis of qualitative data. As such, it is neither guided by an explicit set of philosophical assumptions nor with restraints imposed by structured methodologies. GIA is commonly used in social science, health research, and evaluation. GIA provides a straightforward approach for deriving findings linked to evaluation questions. The primary analytic strategy is that the evaluation objectives identify what subjects to examine and guide the data analysis. The findings may be influenced by the evaluation objectives and are likely to be derived from the evaluation aims.

K.T. conducted the coding and no software was used. The general categories were chosen to be directly comparable to

**TABLE 2.** Interview Guide\*

Questions from the patient satisfaction survey:
How have you experienced your treatment course?
How have you experienced the influence you have had on the content in your treatment?
How have you experienced the number of sessions?
How have you experienced meeting the therapists?
How have you experienced the collaboration with other instances?
How have you experienced the level of information?
Questions concerning the technical equipment:
How has it been to make the connection from the clinic to you?
How have you experienced the sound quality?
How have you experienced the picture quality?

\*Translated from the Danish interview guide.

the survey as their purpose was to retrieve elaborations on the questionnaire questions. Regarding other categories/sub-themes imbedded in the content, data analysis was inductive and carried out through multiple readings of raw text. Raw data were interpreted into a condensed summary format. The interpreter decided what data to use and what not to. One text segment may have been coded into more than one category and a considerable amount of text may not have been coded at all if it was not relevant to the objectives. Essential quotations were added.<sup>17</sup> A.S.N. assessed the trustworthiness.<sup>18</sup>

## RESULTS

The TAU+ I group consisted of 32 patients. Of these, 16 actually used videoconferencing for a total of 60 treatment sessions. In 37 cases, some degree of technical problem was reported. Patients in the TAU+ I group filled out a total of 37 satisfaction questionnaires. Of these, 15 were answered at the 3-month status session, 9 at the 6-month status session, 5 at the 9-month status session, 1 at the

12-month status session, and 2 at the discharge status session. Five patients did not note the status session number on the questionnaire. In addition, semistructured interviews were conducted with 27 of 32 patients in the TAU+ I group.

The TAU group consisted of 39 patients. Patients in the TAU group filled out a total of 44 questionnaires. Of these, 19 were answered at the 3-month status session, 10 at the 6-month status session, 2 at the 9-month status session, 1 at the 12-month status session, and 5 at the discharge status session. Seven patients did not note the status session number on the questionnaire.

## Satisfaction With the Treatment

### The Treatment Course

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+ I group was equally satisfied with their treatment course, compared with the TAU group.

Almost all patients from the TAU+ I group were satisfied or very satisfied with their treatment course at the clinic. When interviewed about the satisfaction, they elaborated in particular on how the treatment course in itself was an

TABLE 3. Satisfaction, by Randomization Group\*

	Mean (SD)		P
	TAU+ I Group	TAU Group	
Satisfaction with the treatment			
The treatment course	4.28 (0.57) <sup>†</sup>	4.12 (0.63) <sup>‡</sup>	0.237
Influence on treatment	4.56 (0.61) <sup>†</sup>	4.37 (0.79) <sup>‡</sup>	0.360
Number of sessions	4.28 (0.66) <sup>†</sup>	4.16 (0.78) <sup>‡</sup>	0.599
Meeting the therapists	4.23 (0.49) <sup>§</sup>	4.16 (0.97) <sup>‡</sup>	0.635
Collaboration with other instances <sup>  </sup>	4.37 (0.74) <sup>¶</sup>	3.88 (1.16) <sup>#</sup>	0.100
Level of information	4.47 (0.61) <sup>†</sup>	4.21 (0.64) <sup>‡</sup>	0.066
Satisfaction with the technical equipment			
Establishing connection**	4.04 (1.20) <sup>††</sup>	—	—
Picture quality**	4.17 (0.83) <sup>††</sup>	—	—
Sound quality**	3.52 (1.38) <sup>††</sup>	—	—
Observations in total	37	44	

\*This table is based on the questionnaire shown in Table 1.

<sup>†</sup>On the basis of 36 observations.

<sup>‡</sup>On the basis of 43 observations.

<sup>§</sup>On the basis of 35 observations.

<sup>||</sup>The answer possibility "I did not have the need for collaboration" is omitted.

<sup>¶</sup>On the basis of 27 observations.

<sup>#</sup>On the basis of 32 observations.

\*\*The answer possibility "I have not used videoconferencing" is omitted.

<sup>††</sup>On the basis of 24 observations.

<sup>‡‡</sup>On the basis of 23 observations.

eye-opener and a success; it was a possibility to obtain treatment right away, no questions asked, and the problem was dealt with. The treatment sessions were plenty, on time, good, very pleasant, and giving. The patients felt that they had received the treatment courses and met the therapists they wanted. They had received help and support, good advice, tools and shoves, were listened to, and their needs and wishes were acted upon.

A couple of patients mentioned during the interview that they were very satisfied with the fact that the finger was not wagged at them when they entered treatment: "This is an amazing place; it is so calm and accepting. I was afraid, when I came that they would point fingers and shame me and tell me how bad it was and stuff. But I have just experienced a loving and caring treatment" (14779). "No pointing fingers and you must and you mustn't, it doesn't exist, I sense, and (...) it has meant a lot to me that you don't. I mean, sometimes I flip out if people tell me what to do and what not to do" (14682).

Some patients reported a few elements that they were not satisfied about, had questions about, or ideas for improvement about: the treatment sessions being too short; uncertainty about the assessment interview; disappointment about receiving contract treatment as cognitive behavioral therapy was anticipated; receiving unnecessary medication against withdrawal symptoms; telling one's story to too many different therapists in the team.

### Influence on Treatment

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+I group was equally satisfied with the influence they had on the content of their treatment as was the TAU group.

Almost all patients from the TAU+I group felt that they had influence on the content of their treatment course. When interviewed, the patients elaborated that they were satisfied with the possibility to have influence on deciding on scheduling, agendas, themes for the sessions, and how much they wanted to share. Also, they were

satisfied to collaborate with the therapists about what to prepare, what to have a dialogue about, and getting advice and help from the therapists. One patient explained it like this: "they (the therapists) based the sessions on my needs and that is amazing. I have only praise, eh, because I think that I have had some prejudices about you, but I must say that they have been confounded. I really think that I was listened to; the issues that I felt were the problems were addressed, I think that is great" (14682). Another patient added: "It has been great, great. A lot of respect. And I was, I mean I have experienced responsibility concerning this, which is really good" (13808).

### Number of Sessions

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+I group was equally satisfied with the TAU group on the number of sessions they have received.

The majority of patients from the TAU+I group thought that the number of sessions was adequate. When interviewed, the patients elaborated that they were satisfied to have influence on the scheduling and number of sessions. Also that it was good that the number of sessions changed, the further along the patients were in the treatment course. One patient explained it like this: "I have experienced it as being adequate for me. My needs have been fulfilled and I have always felt that I could call if I needed more (...) this is also openness and respect of patients (...) the focus is on the patients' needs" (14682).

A few patients thought that there were very few sessions. However, there were also a few that felt that there were more sessions than they needed. Especially those in family treatment thought that the sessions were too many and too long, particularly when they were further along in the treatment course.

### Meeting the Therapists

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+I group and the TAU group were equally satisfied with

the quality of the meeting with the therapists.

The majority of patients from the TAU+ I group had a positive experience meeting the therapists. Patients described the therapists as being concerned, engaged, friendly, happy, hard-working, helpful, nice, open, positive, present, professional, qualified, sympathetic, sweet, and sharing the same set of values. One patient explained it like this: "Well, I think that they are competent, warm, friendly, sweet, nice, skillful people, I do, helpful, understanding, listening, I could come up with many adjectives" (3827). Patients felt well-received by the therapists and described the sessions as polite and positive moments, where they had good dialogues and professional relationships that facilitated openness. The patients felt that focus was on their needs and problems. They received good advice, guidance, tools, and support instead of pressure, as well as eye openers that made them see possibilities of action and facilitated change.

### **Collaboration With Other Instances**

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+ I group was equally satisfied with the clinic's collaboration with other instances regarding their treatment, compared with the TAU group.

Only a few patients from the TAU+ I group had other instances to collaborate with the clinic about their treatment course. Most of them had not at all or only to a small extent experienced this collaboration with general practitioners, caseworkers, drop-in centers, psychiatric wards, the Danish Prison and Probation Service, etc.

### **Level of Information**

In Table 3, it can be seen that on a Likert scale from 1 to 5, from negative to positive, the TAU+ I group was equally satisfied with the level of information, compared with the TAU group.

The majority of patients from the TAU+ I group thought that the level of information was adequate and otherwise it was possible to ask for it.

A few patients thought that the level of information was not adequate.

## **Satisfaction With the Technical Equipment**

### **Establishing Connection**

In Table 3, it can be seen that patients who have used the computer for videoconferencing rated their satisfaction with establishing the videoconferencing connection between the clinic and the patient at a mean score of 4.04 (SD = 1.20) on a Likert scale from 1 to 5, from negative to positive.

More than half of the patients who used the computer for videoconferencing and answered subsequent interview questions about the technical equipment had found it easy to set up the computer and establish the videoconferencing connection to the clinic. One patient explained that even when the speed of the connection was lower than anticipated, the connection was fine. Another reported that it was fine to establish the connection when the patient's own internet was used.

The rest experienced minor to severe problems establishing the connection. Some explained that it was because of the distance and/or location they were videoconferencing from. Some tried using their own internet or the telephone. One patient elaborated: "Establishing the connection has been varying. I do not think that it has been a problem per se. In the beginning there were some times where we could not get in contact with each other at all. And when we made contact then the picture was blurred. Plus the sound has been fairly bad many times" (13808).

### **Picture Quality**

In Table 3, it can be seen that patients who used the computer for videoconferencing rated their satisfaction with the picture quality at a mean score of 4.17 (SD = 0.83) on a Likert scale from 1 to 5, from negative to positive.

All patients who used the computer for videoconferencing and answered subsequent interview questions about the technical equipment were satisfied with the picture quality.



A vast majority explained that the picture quality was fine. Some elaborations were that everything could be seen, there were no delays, the picture was better than the sound, and that the picture quality was okay but it could have been better.

### Sound Quality

The patients who used the computer for videoconferencing were less satisfied with the sound quality than with the picture quality and establishing the connection. It can be seen in Table 3 that patients who used the computer for videoconferencing rated their satisfaction with the sound quality at a mean score of 3.52 (SD = 1.38) on a Likert scale from 1 to 5, from negative to positive.

Half of the patients who used the computer for videoconferencing and answered subsequent interview questions about the technical equipment were more or less satisfied with the sound quality. They explained that the sound quality was fine. During the interview, the patients elaborated that it could be heard right away what the therapist said, it was slightly delayed like in similar set-ups, there were some difficulties with the sound at the beginning, and that it fell out but returned.

The other half of the patients were not satisfied with the sound quality. They experienced the sound quality to be worse than the picture quality. Some elaborations were that the sound was slightly delayed, the sound was lost during the session, and that the therapists could not hear the patients. The most common remedy for solving this problem was using telephones for the sound.

### In General

In general, some of the patients experienced that the technical equipment worked and that it was simple and user friendly. Also, they explained that the technical quality was okay and as expected.

Others did not find it impressive, as something technical was always wrong. Some patients felt it was important in a conversation that you experience

eye contact and do not talk at the same time, which could be hard to establish in a conversation via videoconferencing. They explained that the location of the camera should be considered, as it is important for the therapist to look into the camera and not down, to allow the patient to feel the eye contact when talking. This should be a routine to get the full benefit from the sessions; otherwise, videoconferencing is not suitable for cognitive behavioral therapy.

Some of the patients also had ideas on how to improve the satisfaction with the technical equipment. One idea was to write in the user guide to turn on the computer in advance if it had not been used for a while and needed to update and restart. Another idea for improvement was having helping aids, such as score cards, forms, etc., in the bag with the computer. A final idea was to have the videoconferencing client installed on the patients' own computers to have a better internet connection than mobile broadband can provide.

## DISCUSSION

The present study examined patient satisfaction with different elements in treatment for AUD. First, general elements in the treatment course, about the patients' influence on the content in the treatment, the number of sessions, the meeting with the therapists, collaboration with other instances, and the level of information. Second, specific elements in the satisfaction with the technical equipment, about establishing videoconferencing connection to the clinic, picture quality, and sound quality. The results of the survey indicate that the TAU+I group was equally satisfied with the general elements in the treatment, compared with the TAU group. Also when interviewed, the patients in the TAU+I group seemed to have a high satisfaction with most of the elements in the treatment. Regarding elaborations on satisfaction, we have no reason to believe that patients in the TAU group would have answered differently.

Regarding satisfaction with the technical equipment, the patients who

used videoconferencing seemed satisfied with the way the connection from the clinic to the patient was established. When interviewed, more than half of the patients found it easy to set-up the computer and make the videoconferencing connection from the clinic to them. Similar studies have found that patients felt no effort was needed in using the equipment.<sup>4</sup> The patients who used videoconferencing also seemed satisfied with the picture quality. When interviewed, all were satisfied with the picture quality. Similar studies report high average ratings for the visual quality of the equipment.<sup>3,4</sup> Constructive suggestions from another study were mostly concerned with the picture quality, regarding the importance of having a high-quality visual picture, improved lightning, and a bigger screen.<sup>5</sup> However, the patients who used videoconferencing seemed less satisfied with the sound quality. When interviewed, they explained that the sound caused the most trouble among the technical equipment. Similar studies have found high average ratings for the sound quality of the equipment.<sup>3,4</sup> However, also here there were negative reports about the sound and experiences of general problems with the sound quality, delays in communication, and difficulties understanding particular words the researcher was saying.<sup>4</sup> The patients' coping with the technical equipment should be interpreted according to the patient's characteristics. The average participant was about 47 years old, predominantly male, a large part had higher/continuing education, and less than half were currently employed. As such, these characteristics do not seem to make the group challenged by using the technical equipment.

Even though we did not find any significant differences in satisfaction between the TAU+I group and the TAU group, there was a small nonsignificant tendency that the TAU+I group was slightly more satisfied with the treatment, compared with the TAU group. If we have had a larger sample, we may have been able to show a significant difference between the 2 groups in the same direction. The tendency is, however, simultaneous with significant increased retention in the TAU+I group, compared with the TAU group.

Thus, it is a possibility that patients in this group felt more satisfied with the treatment and prolonged their treatment courses as they had the opportunity to receive sessions through videoconferencing. Similar studies report high overall satisfaction with videoconferencing,<sup>3,4</sup> generally finding the experience interesting or unusual, feeling relaxed and at ease, and being positive about having access to a health professional.<sup>4</sup> Positive findings from similar studies include excellent satisfaction with videoconferencing sessions, sessions being rated as at least as beneficial as same-room groups, and participants reporting that they were more comfortable with the videoconferencing group sessions than they were with the same-room group sessions.<sup>5</sup> This indicates that offering videoconferencing-based treatment may be a positive feature in the treatment and perhaps, ultimately, mean better treatment courses with better outcomes for the patients.

### Limitations

This study may be characterized by considerable limitations. The survey was anonymous; hence, we were not able to compare the questionnaires with ASI data on the patients from the clinical database. Also, the questionnaires did not ask about additional information on socioeconomics, alcohol use, or treatment. Furthermore, it may be a bias that we do not have questionnaires from all patients and all statuses and that we do not know if it is the same patients who answered the questionnaire at each status. Moreover, it is a possibility that there is response bias as the TAU+I group may have felt obliged to answer positively as they have received the intervention. To strengthen the study, the quantitative analyses based on the questionnaires are supplemented by the qualitative analyses from the interviews with the TAU+I group.<sup>19</sup> However, here it may be a limitation that only patients from the TAU+I group were invited and that only K.T. coded the data.

### CONCLUSIONS

The results from the survey indicate that the TAU+I group was just as satisfied with the elements in the treatment as

the TAU group. Also, in the qualitative elaborations, the patients in the TAU+I group seemed to have a high satisfaction with most elements in the treatment. Patients who used videoconferencing were satisfied with the way the connection from the clinic to the patient was established and with the picture quality. However, the patients were less satisfied with the sound quality. In a future study or implementation situation, the technical equipment and routine using it should be improved. We saw a nonsignificant tendency that the TAU+I group were more satisfied with the treatment in general, compared with the TAU group. It is a possibility that patients in this group felt more satisfied with the treatment as they had the opportunity to choose videoconferencing. Offering videoconferencing-based treatment may be a positive feature in the treatment and lead to improved outcomes of the treatment courses.

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